

# Ashen Gunaratne

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## experience

### Secure Agility

Lead DevOps Engineer

Sydney, Australia

August 2023 - Present

Lead cross-SaaS integration architect; Design, author, and oversee custom integrations and workflows interconnecting multiple SaaS services.

Alembic Autotask Azure DevOps Services Azure Ekahau Float GitHub ITGlue LogicMonitor PowerBI  
Python Terraform

### Singlife

Technical Lead

Singapore, Singapore

April 2022 - July 2023

Mobile backend tech lead; Design, author, and review RESTful API specifications and moderate related infrastructure cohering to compliance and security statutes.

Anti-Corruption Layer AWS AWS CDK Jest Node.js Quantum Databases RESTful APIs Slack Bots TeamCity  
TypeScript

### Railsbank

Associate Technical Lead

London, United Kingdom

December 2021 - March 2022

BaaS integrations tech lead; Plan, design, and oversee regulated provider infrastructure integrations conforming to compliance and security statutes.

AWS CucumberJS Elastic Stack (ELK) GitLab CI/CD GraphQL Jest Kubernetes mTLS Node.js OpenPGP  
RESTful APIs Slack Bots Terraform TypeScript

### Railsbank

Engineer

London, United Kingdom

December 2020 - December 2021

BaaS integrations engineer; Design, author, and review regulated provider infrastructure integrations conforming to compliance and security statutes.

AWS CucumberJS Elastic Stack (ELK) GitLab CI/CD GraphQL Jest Kubernetes mTLS Node.js OpenPGP  
RESTful APIs Slack Bots Terraform TypeScript

### Al Iman Schools

Educator

Colombo, Sri Lanka

October 2020 - December 2020

Educator for computer science; Responsible for designing, implementing, and delivering custom tailored curriculums for key stages three, four, and five with emphasis on art of programming and integrating computer science in the domain of other subjects.

AsciiDoc CSS HTML JavaScript Python PyUnit

### British College of Applied Studies

Lecturer

Colombo, Sri Lanka

July 2018 - July 2019

Instructor for *Pearson BTEC HND* in Computing; Responsible for level 5 specialist units: *Computer Systems Architecture, Data Structures and Algorithms, Discrete Mathematics, Network Management, and Network Security.*

C Firewalls IDS/IPS Systems JavaScript Python

**Exetel PTY Limited***Network Engineer*

Sydney, Australia

October 2016 - February 2017

Govern, implement, and troubleshoot real-time traffic steering policies to ensure critical application delivery, value-added services, and user quality of experience driving profitability of key deliverables in the digital data & device space in terms of revenue, users, traffic across 30 Gb/s data link.

Firewalls IPv4 RADIUS Servers SNMP TCP/UDP VoIP

**IKON Systems (Private) Limited***Chief Information Officer*

Colombo, Sri Lanka

January 2016 - October 2016

Direct and manage computing and information technology strategic plans, policies, programs, schedules, and responsible for advertising network's scalability, security, and capacity-planning.

AWS Systemd HAProxy

*research interests*

Cybersecurity, digital forensics, botnets, computer science education, distance learning, collaborative learning, computer-assisted instruction

*education***Harvard College***Bachelor of Liberal Arts (A.L.B.)*

Massachusetts, United States

June 2017 - September 2021

Computer Science; GPA 3.9 (as of May 2018)

Related studies in linear algebra, statistics and probability, and finance.

**Stanford University***MOOC*

California, United States

October 2017 - November 2017

Studies in enterprise-level web application deployment with focus on security, reliability, scalability, and cross-browser support.

**Harvard University***MOOC*

Massachusetts, United States

January 2015 - December 2015

Studies in computer science for real-world domains of biology, cryptography, finance, forensics, and gaming.

**Université Catholique de Louvain***MOOC*

Charleroi, Belgium

January 2015 - November 2015

Studies in major programming concepts, techniques, and paradigms in a unified framework.

**The University of British Columbia***MOOC*

Vancouver, Canada

January 2015 - October 2015

Studies in computation as a tool for systematic problem solving in non-computer-science disciplines.

**Lakeland Inter-American School***Pearson Edexcel AS Level*

Colombo, Sri Lanka

June 2014 - July 2015

**Lakeland Inter-American School***Pearson Edexcel Ordinary Level*

Colombo, Sri Lanka

March 2011 - June 2014

*projects***Singlife's BaaS provider reverse-engineering**

- Associate technical lead for Railsbank replacement with in-house BaaS service
- Coarchitected in-house replacement service to exactly replicate Railsbank functionalities
- Designed and authored the state machines for transaction execution - interledger, manual credit, and manual debit transactions
- Designed and authored DBS outbound and inbound integration connectors to facilitate Fast and PayNow payments and ICN notifications

**Habitto Money GraphQL and REST backend**

- Lead consultant for setting up initial backend monorepo and related pipelines
- Setup initial Nx monorepo, BitBucket OpenID runner authentication, and initial Terraform setup
- Later, consultant and lead developer for authoring fully automated self provisioning review environments using BitBucket CI/CD with multiple deployables
- Lead developer for authoring a seamless custom in-house replacement solution for Fivetran

**Dealt Australia**

- Lead architect for migrating existing customer-hosted Hyperledger Fabric to ImmuDB
- Automated all application deployments and configuration management using AWS CodeDeploy and BitBucket CI/CD
- Migrated all existing infrastructure to use IaC for management and provisioning and added enforcement checks to prevent manual infrastructure manipulations
- Revamped virtual cloud networking to incorporate public, private, and NAT subnets and redesigned the microservice endpoints and inter-service communication
- Standardized logging, monitoring, and alerting

**CaterCare Australia**

- Lead consultant and developer for standardizing GitHub developer workflows
- Wrote a custom extensible GitHub Action to facilitate auto-labelling and auto-approving for a specific set of pull-requests obeying a predefined ruleset that require no reviews
- Set up branch/tag protection rules, code owners, secret scanning, and repo properties to standardize merging and pull-request approvals

*honors and awards***HackerRank***Gold Honours - Problem Solving*

Gold honours, five-star proficiency rating, in the domains of algorithms and data structures.

**HackerRank***Gold Honours - Python*

Gold honours, five-star proficiency rating, in the domain of Python subsuming all language-supported paradigms.

**HackerRank***Gold Honours - SQL*

Gold honours, five-star proficiency rating, in the domains of SQL subsuming all language-supported paradigms.

*licenses & certifications***HashiCorp***IaC Automation***HackerRank***Python**academic service***freeCodeCamp***Curriculum Contributor*

February 2017 - Present

Authored guides and specimen solutions for freeCodeCamp certification program challenges on algorithm design.

**edX***Content Support Associate*

December 2016 - Present

Validate and alter qualitative attributes of uploaded course materials to meet edX guidelines.

*community service***United Nations***Volunteer Task Force*

January 2015 - Present